ITCS 209 Object Oriented Programming	Name:	Lab Score	Challenge Bonus	Peer Bonus
	ID:			
	Section:			

Lab03: Condition and Loop

Objectives:

- Students can use conditions and a loop technique to solve the given problems.

In this lab, you are about to implement a Java program to solve **THREE** small tasks when users select a task numbers 1, 2, or 3. Please download the starter file `Myprogram.java` to start. You are allowed to work only in the **TODO** section, and please do not modify any other part in the starter file.

Task 1: (number==1) Write a program to enter the numbers until pressing 0 to stop, then the program should calculate and display the largest (Max), smallest (Min), and Average numbers entered.

```
Please select number 1-3 to run the program, or press 0 to quit:
1
Please insert number to the program and press 0 to to calculate the Max and Min value:
2
4
5
9
0
Max=9
Min=2
Average=5.0
```

Note that:

- 0 will be a number to terminate the program, and the number 0 must not be used to calculate for Min, Max, and Average.
- If 0 is pressed at the start, the program will display only Max=0 and Min=0 but not the Average.

Task 2: (number==2) Write a program to print the following triangle of input height `h`.
Example of the triangle where height `h=5`

```
    0
   111
  22222
 3333333
444444444
```

```
Please select number 1-3 to run the program, or press 0 to quit:
2
Please insert any number as a high of the triangle:
10
         0
        111
       22222
      3333333
     444444444
    55555555555
   6666666666666
  777777777777777
 88888888888888888
9999999999999999999
```

Note that: the number is the row displayed in the image.

Task3: (number==3) Write a program to print the following Roman 3 number.

```
Please select number 1-3 to run the program, or press 0 to quit:
3
  ***  ***  ***
   *    *    *
   *    *    *
   *    *    *
   *    *    *
   *    *    *
  ***  ***  ***
```

Challenge Bonus (Optional):

Create a new class name `Trailingzero.java` with the main method. Write a program to compute the number of trailing zeros from any integer `n, where 0 < n < 1024` after converting to binary format.

```
142
10001110
1
```

Example:

- `n=128 : 10000000 = 7`
- `n=104 : 1101000 = 3`
- `n=36 : 100100 = 2`

Note that: if input `n >= 1024`, the program should display “The input should lower than 1024”.

```
1024
The input should lower than 1024.
```